Patent claims.

1. A microparticle with a support structure and CD28-specific superagonistic monoclonal antibodies (mAbs) bonded to the support structure or a compound mimicking the above.

2. A microparticle according to claim 1, wherein the mAbs are directly and preferably covalently bonded to the surface of the support structure.

3. A microparticle according to claim 1, wherein the mAbs are indirectly bonded to the surface of the support structure by a spacer compound preferably covalently bonded to the surface of the support structure.

4. A microparticle according to claim 3, wherein the spacer compound is selected from the group consisting of "organic polymers, peptides, proteins, and combinations of such substances".

5. A microparticle according to one of claims 1 to 4, wherein the surface of the support structure is formed by an organic polymer, which is preferably selected from the group con-

sisting of "polystyrene, polyurethane, polyester, polyvinylpyridine, polyvinylamine, polyethyleneimine, chitosan, and mixtures of such polymers".

6. A microparticle according to claim 5, wherein the organic polymer comprises reactive groups, which for instance is glycidylether.

7. A microparticle according to claim 5 or 6, wherein the organic polymer is surface activated by treatment with an activation reagent, which preferably is p-toluenesulfonyl chloride.

8. A microparticle according to one of claims 1 to 7, wherein the diameter of the support structure is in the range from 0.1 µm to 100 µm, preferably in the range from 1 µm to 20 µm, in particular in the range from 1 µm to 10 µm.

9. A microparticle according to one of claims 1 to 8, wherein the surface of the support structure (measured by means of the BET method) is 1 to 10, preferably 1 to 4 times the geometric surface, assumed as a smooth sphere surface.

10. The use of microparticles according to one of claims 1 to 9 for the stimulation of blood cells, in particular T lymphocytes, B lymphocytes, granulocytes, monocytes and/or thrombocytes.

11. The use according to claim 10 for preparing a pharmaceutical composition for the treatment of diseases with reduced blood cell counts, in particular reduced T lymphocyte counts, or of immunopathologic diseases or for strengthening the immune reaction in case of vaccinations, wherein a blood sample is taken from a patient, wherein as an option the blood cells are isolated from the blood sample, wherein the blood cells are cultivated in vitro under addition of a physiologically effective dose of microparticles, and wherein the thus obtained blood cells are as an option galenically prepared for the injection or infusion.

12. The use according to claim 10 for preparing a pharmaceutical composition for the treatment of diseases with reduced blood cell counts or of immunopathologic diseases or for strengthening the immune reaction in case of vaccinations, wherein the microparticles are galenically prepared preferably for the injection or infusion.

13. A method for preparing microparticles according to one of claims 1 to 9, comprising the following steps:

a) microparticles with a surface formed by one or several different organic polymers are prepared,

b) as an option, the surface is activated,

c) the thus obtained microparticles are incubated with a solution containing CD28-specific superagonistic mAbs, wherein the mAbs preferably are covalently bonded to the surface, or

c') the thus obtained microparticles are firstly incubated with a solution containing a spacer compound, wherein the spacer compound preferably is covalently bonded to the surface, as an option followed by a washing step, and subsequently the microparticles with the bonded spacer compound are incubated with a solution containing CD28-specific superagonistic mAbs, wherein the mAbs are covalently or non-covalently bonded to the spacer compound, and

e) the thus obtained microparticles carrying CD28-specific superagonistic mAbs are separated from the solution and as an option subjected to a washing step.